

# Inconsistencies between NTPv5 requirements and proposal

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NTPv5 requirements: [draft-gruessing-ntp-ntp5-requirements-02](#)

NTPv5 proposal: [draft-mlichvar-ntp-ntp5-02](#)

# MUST/SHALL in requirements, absent in proposal

“The specification MUST have support for servers to notify clients that the service is unavailable, and clients MUST have clearly defined behaviours honoring this signaling.”

- Suggest using a flag bit in response message
- And a normative statement for clients to send no requests to this server for some period of time

“The protocol MUST have the capability to be extended, and that implementations MUST ignore unknown extensions. Unknown extensions received by a server from a lower stratum server SHALL not be added to response messages sent by the server receiving these extensions.”

- Important to have a default behavior.
- Suggest adding this to section 5 in proposal

# MUST/SHALL in requirements, absent in proposal

“Encryption and authentication MUST be provided by the protocol specification as a default and MUST be resistant to downgrade attacks.”

- Suggest adding security section to proposal
- State this as a requirement, but
- Define security mechanism options in separate documents

# MUST NOT in requirements, present in proposal

“Leap second smearing SHOULD NOT be part of the wire specification, however this should not prevent implementors from applying leap second smearing between the client and any clock it is training but MUST NOT be applied to downstream clients.”

- Proposal lists “Leap-smearred UTC” as one of the allowed timescales
- Leap smearing is going to a happen, better to make it visible

# Present in proposal, absent in requirements

## Features for higher accuracy

- On path support
- Interleaved mode